contd. A7 Sub C20

$(CH_2)_p$aryl, -$(CH_2)_p$aralkyl, -$(CH_2)_p$OH, -$(CH_2)_p$O-lower alkyl, -$(CH_2)_p$O-lower alkenyl, -$O(CH_2)_nR$, -$(CH_2)_p$SH, -$(CH_2)_p$S-lower alkyl, -$(CH_2)_p$S-lower alkenyl, -$S(CH_2)_nR$, -$(CH_2)_pN(R)_2$, -$(CH_2)_p$NR-lower alkyl, -$(CH_2)_p$NR-lower alkenyl, -$NR(CH_2)_nR$, and protected forms of the above, wherein R represents, independently for each occurrence, hydrogen, or substituted or unsubstituted aryl, heterocycle, heteroaryl, alkylaryl, alkenyl, or alkyl, and wherein each occurrence of p independently represents an integer from 0-10.

8) Please replace claim 158 as originally filed with the following amended claim 158:

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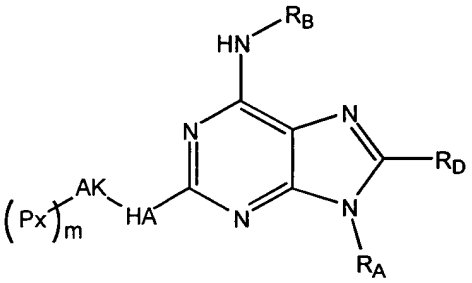
158. A compound having the structure:



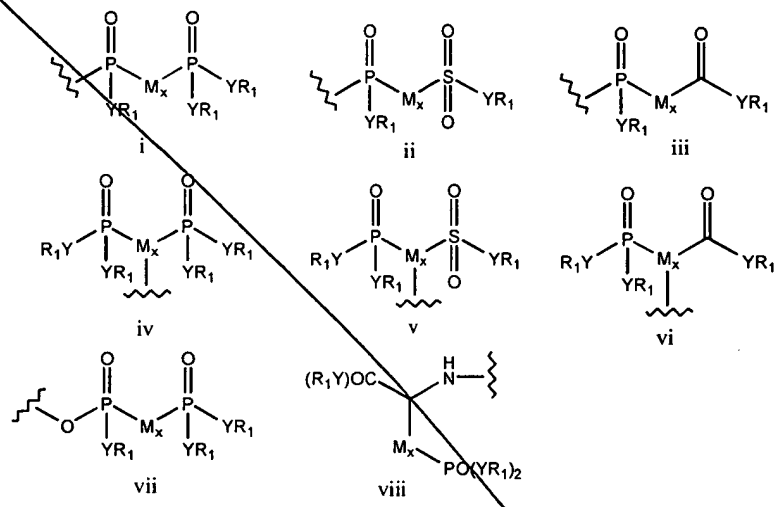
wherein R_A is hydrogen, an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety; R_B is an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety; and R_D is hydrogen, halogen, an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, or $-ZR_E$, wherein Z is -O-, -S-, or NR_F, wherein R_E is hydrogen, or an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, and R_F is an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, wherein in each of the foregoing groups each aliphatic, heteroaliphatic, alkylaryl, or alkylheteroaryl moiety may be branched or unbranched, cyclic or acyclic and substituted or unsubstituted, and each aryl and heteroaryl moiety may be substituted or unsubstituted; wherein AK is a linear or branched, cyclic or acyclic, substituted or unsubstituted aliphatic or heteoraliphatic moiety; and wherein HA is absent, -O-, -S- or –NH-;

wherein P_x is a phosphorus containing moiety having the structure $-P(X)YR_GYR_H$, wherein X is independently an alkyl moiety, =O or =S; R_G and R_H, for each occurrence, are

contd A8

independently hydrogen, or substituted or unsubstituted aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, and each occurrence of Y is independently a covalent bond, -O-, -S- or $N(R_J)_2$, wherein R_J, for each occurrence, is independently hydrogen, aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

or is a phosphorus moiety having any one of structures i-viii:



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wherein each occurrence of M is independently CH_2, CHV, CHOH, or CV_2; each occurrence of Y is independently a covalent bond, -O-, -S- or $N(R_J)_2$, wherein R_J, for each occurrence, is independently hydrogen, aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl; wherein V is a halogen; each occurrence of x is independently 1-6, and in certain embodiments is 1 or 2; and each occurrence of R_1 is independently hydrogen, aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, alkylheteroaryl, a prodrug or pharmaceutically acceptable derivative; and

wherein m is 1-3.

9) Please replace claim 181 as originally filed with the following amended claim 181:

A9

181. A method of treating or preventing bone disorders comprising administering to a subject in need thereof a therapeutically effective amount of a compound having the formula:

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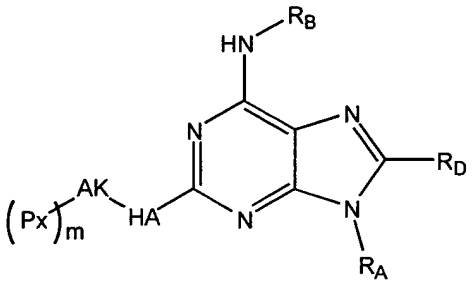
a9



wherein R_A is hydrogen, an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety; R_B is an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety; and R_D is hydrogen, halogen, an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, or $-ZR_E$, wherein Z is -O-, -S-, or NR_F, wherein R_E is hydrogen, or an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, and R_F is an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, wherein in each of the foregoing groups each aliphatic, heteroaliphatic, alkylaryl, or alkylheteroaryl moiety may be branched or unbranched, cyclic or acyclic and substituted or unsubstituted, and each aryl and heteroaryl moiety may be substituted or unsubstituted; wherein AK is a linear or branched, cyclic or acyclic, substituted or unsubstituted aliphatic or heteoraliphatic moiety; and wherein HA is absent, -O-, -S- or –NH-;

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wherein P_x is a phosphorus containing moiety having the structure $-P(X)YR_GYR_H$, wherein X is independently an alkyl moiety, =O or =S; R_G and R_H, for each occurrence, are independently hydrogen, or substituted or unsubstituted aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, and each occurrence of Y is independently a covalent bond, -O-, -S- or $N(R_J)_2$, wherein R_J, for each occurrence, is independently hydrogen, aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

or is a phosphorus moiety having any one of structures i-viii: